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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,076	05/13/2005	Diane Elsie Hall	BP9861-00	1916
4249	7590	08/24/2009	EXAMINER	
CAROL WILSON BP AMERICA INC. MAIL CODE 5 EAST 4101 WINFIELD ROAD WARRENVILLE, IL 60555			GOLOBOY, JAMES C	
			ART UNIT	PAPER NUMBER
			1797	
			NOTIFICATION DATE	DELIVERY MODE
			08/24/2009	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/535,076	<b>Applicant(s)</b> HALL, DIANE ELSIE	
	<b>Examiner</b> James Goloboy	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2009 and 18 June 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 16, 25, 26, 33-39, 41 and 53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16, 25-26, 33-39, 41, 53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Applicant's amendment filed 6/4/09 overcomes the rejections set forth in the office action mailed 12/10/08 as the composition recited in the amended claims comprises ZDDP as a required component while the composition of Chamberlin is ZDDP-free.

### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submissions filed on 6/4/09 and 6/18/09 have been entered.

### ***Claim Rejections - 35 USC § 103***

3. Claims 16, 25-26, 33-39, 41, and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ritchie (U.S. PG Pub. No. 2004/0048753) in view of Cooper in light of the evidence provided by Twigg.

In paragraph 1 Ritchie discloses lubricating oil compositions for diesel engines, and in paragraph 15 and the reference's claim 17 discloses that the oils can be used in heavy duty diesel engines, as recited in claim 16. In paragraph 145 Ritchie discloses that the sulfur content of the oil is most preferably less than 0.15% by weight, within the

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range recited in claims 16 and 33-35. In paragraphs 113-115 Ritchie discloses that the composition comprises ZDDP as an antiwear agent, and is present in an amount providing 0.02 to 0.12% by weight of zinc, implying a concentration range for ZDDP overlapping the ranges recited in claims 16 and 53. In paragraph 14 Ritchie discloses that the diesel fuel used in the heavy duty diesel engine most preferably has a sulfur content of less than 25 ppm, within the range recited in claim 16 and overlapping the ranges recited in claims 25-26. In paragraph 112 Ritchie discloses that the composition includes additional additives as recited in claims 16 and 39. In paragraphs 120-125 Ritchie discloses that the composition can comprise organic friction compounds or molybdenum compounds as recited in claim 36. In paragraphs 116-117 Ritchie discloses that the composition can contain phenolic and amine antioxidants, as recited in claim 37. In paragraph 38 Ritchie discloses that the composition can contain a salicylate detergent, meeting the limitations of claims 36 and 38.

Ritchie does not disclose a heavy duty diesel engine further equipped with the claimed particulate trap.

Cooper, in column 1 lines 4-56, discloses a particulate trap for diesel engines which comprises a filter and a catalyst. In column 2 lines 16-21, Cooper discloses that the trap contains a platinum or other platinum group metal oxidation catalyst. The trap of Cooper therefore meets the limitations of the trap of claim 16. The results shown in Figure 4 and discussed in column 10 lines 19-45 show that the trap is useful in heavy duty diesel engines, such as those of Ritchie.

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While Cooper does not refer to the trap as a continuously regenerating trap, Twigg, in column 1 lines 25-36, refers to the trap of Cooper as a continuously regenerating trap. The use of the trap of Cooper in the heavy duty diesel engine of Ritchie therefore meets the limitations of claim 16.

It would have been obvious to one of ordinary skill in the art to use the trap of Cooper in the heavy duty diesel engine in the method of Ritchie, as Cooper teaches that the trap provides superior performance in removing particulates from heavy duty diesel exhaust streams. As the method of Ritchie in view of Cooper in light of the evidence provided by Twigg performs all the steps of the claimed method, it will meet the limitations regarding the reduction of nucleation mode particles recited in claims 16 and 41.

### ***Response to Arguments***

4. Applicant's arguments have been considered but are moot in view of the new grounds of rejection. Ritchie teaches a method of lubricating a heavy duty diesel engine with a composition comprising ZDDP.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Goloboy whose telephone number is (571)272-2476. The examiner can normally be reached on M-F 9-5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JCG

/Glenn A Caldarola/  
Acting SPE of Art Unit 1797